Course Code	Course Title	ECTS Credits
SPSC-430	Exercise Performance In Young Athletes	6
Department	**Semester**	**Prerequisites**
Sports Science	Spring or Fall	SPSC-240, -315, -316
Type of Course	**Field**	**Language of Instruction**
Elective	Science of Sports: Coaching	Greek
Level of Course	**Year of Study**	**Lecturer**
1st Cycle	4th	Dr Hadjicharalambous Marios Dr Christou Marios
Mode of Delivery	**Work Placement**	**Co-requisites**
face-to-face	N/A	None
Recommended Optional Programme Components: N/A		

Objectives of the Course:

Young athletes are physically developing, from early childhood to late adolescence. This means that they have different capabilities for, and adaptations to, exercise and for this reason, young athlete training programs should not be just scaled down versions of adult training programs. The primary aim of the course is to academically inform students to the anatomical, physiological and biochemical factors that affect exercise training and exercise performance of young athletes.

Learning Outcomes:

By the end of this course the students should be able to:

1. Clearly understand the anatomical/physiological/biochemical differences between young and mature athletes.
2. Developing core skills
3. Boosting performance
4. Preventing 'Unexplained Underperformance Syndrome' (UPS)
5. Overreaching vs overtraining
6. Avoiding burnout, staleness, and overtraining syndrome
7. Effective endurance training
8. Designing programs
9. Resistance training
10. Relating training to ability
11. Boosting endurance capacity

Course Contents:

1. Introduction to preparation of kids physically for games
2. Growth rates, bone development and training
3. Skills development
4. Improving performance safely
5. Avoiding repetitive strain injury
6. Endurance training in young athletes

7. Effects of growth on endurance
8. Pubertal status and training
9. Strength training, strength gain, body size and body composition
10. Strength training & exercise performance
11. Strength training & safety
12. Strength training for children and adolescents
13. Overuse Injury
14. Preventative training for young female athletes
15. Nutrition prior to training/competition
16. Recovery nutrition for young athletes

Learning Activities and Teaching Methods:

Lectures, discussions, demonstration, practical application

Assessment Methods:

One mini essays/reviews, 1500 words, Midterm examination, Final examination.

Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Armstrong	Paediatric Exercise Science and Medicine	Oxford University Press	2009	**ISBN**-10: 0-19-923248-2 **ISBN**-13: 978-019-923248-2
Avery D. Faigenbaum, Wayne L. Westcott	Strength & Power for Young Athletes	Human Kinetics	2000	0736002189

Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Michael A. Messner	It's All for the Kids: Gender, Families, and Youth Sports	Univ of California Pr	2009	9780520257108
Simon Thadani, Steve Foley, Alison Byard	Kids' Football Fitness: Coaching, Conditioning and Nutrition	A & C Black Publishers Ltd	2008	140810573X
Donald A. Chu, Avery D. Faigenbaum, and Jeff E. Falkel	Progressive Plyometrics for Kids (and DVD)	Coaches Choice Books; DVD Video edition	2006	1585189553
J. Andy, Sullivan, Steven J. Anderson	Care Of The Young Athlete	American Academy Of Pediatrics	2000	**ISBN-13:** 9781581100501 **ISBN-10:** 1581100507
Atko Viru, Mehis Viru	Biochemical Monitoring of Sport Training	Human Kinetics	2001	0736003487